JUN 0 1 2004 %

SEQUENCE LISTING

<110> CHRISTOPHE AUDONNET ET AL.

<120> LIVE RECOMBINED VACCINES INJECTED WITH ADJUVANT

<130> 454313-3159

<140> 09/622,951

<141> 2000-08-24

<150> PCT/FR99/00453

<151> 1999-03-01

<160> 31

<170> PatentIn Ver. 2.1

<210> 1

<211> 1698

<212> DNA

<213> Equine Influenza Virus, Newmarket 2/93 Strain

<400> 1

atgaagacaa ccattatttt gatactactg acccattggg tctacagtca aaacccaacc 60 agtggcaaca acacagccac attatgtctg ggacaccatg cagtagcaaa tggaacattg 120 gtaaaaacaa taactgatga ccaaattgag gtgacaaatg ctactgaatt agttcagagc 180 atttcaatag ggaaaatatg caacaactca tatagagttc tagatggaag aaattgcaca 240 ttaatagatg caatgctagg agacccccac tgtgatgtct ttcagtatga gaattgggac 300 ctetteatag aaagaageag egettteage aattgetace catatgacat eeetgactat 360 gcatcgctcc ggtccattgt agcatcctca ggaacattgg aattcacagc agagggattc 420 acatggacag gtgtcactca aaacggaaga agtggagcct gcaaaagggg atcagccgat 480 agtttettta geegaetgaa ttggetaaca aaatetggaa aetettaece cacattgaat 540 gtgacaatgc ctaacaataa aaatttcgac aaactataca tctgggggat tcatcacccg 600 ageteaaace aacageagae agaattgtae ateeaagaat caggaegagt aacagtetea 660 acaaaaagaa gtcaacaaac gataatccct aatatcggat ctagaccatg ggtcaggggt 720 caatcaggca ggataagcat atactggacc attgtaaaac ctggagatat cctaatgata 780 aacagtaatg gcaacttagt tgcaccgcgg ggatatttta aattgaaaac agggaaaagc 840 tctgtaatga gatcagatgc acccatagac atttgtgtgt ctgaatgtat tacaccaaat 900 ggaagcatcc ccaacgacaa accatttcaa aatgtgaaca aagttacata tggaaaatgc 960 cccaagtata tcaggcaaaa cactttaaag ctggccactg ggatgaggaa tgtaccagaa 1020 aagcaaatca gaggaatctt tggagcaata gcgggattca tagaaaacgg ctgggaagga 1080 atggttgatg ggtggtatgg attccgatat caaaactcgg aaggaacagg acaagctgca 1140 gatctaaaga gcactcaagc agccatcgac cagattaatg gaaaattaaa cagagtgatt 1200 gaaaggacca atgagaaatt ccatcaaata gagaaggaat tctcagaagt agaagggaga 1260 atccaggact tggagaagta tgtagaagac accaaaatag acctatggtc ctacaatgca 1320 gaattgctgg tggctctaga aaatcaacat acaattgact taacagatgc agaaatgaat 1380 aaattattcg agaagactag acgccagtta agagaaaacg cggaagacat gggaggtgga 1440

tgtttcaaga tttaccacaa atgtgataat gcatgcattg gatcaataag aaatgggaca 1500 tatgaccatt acatatacag agatgaagca ttaaacaacc gatttcaaat caaaggtgtt 1560 gagttgaaat caggctacaa agattggata ctgtggattt cattcgccat atcatgcttc 1620 ttaatttgcg ttgttctatt gggtctcatt atgtgggctt gccaaaaagg caacatcaga 1680 tgcaacattt gcatttga 1698

<210> 2 <211> 2956 <212> DNA <213> Feline Herpesvirus

<400> 2 atgtatggtt actggctgga atgtgttatt tgtacagtca tatgtaatgt accactcaac 60 acgatatatt tatatcgcgg ttgtgtctaa taactgtttt taaataaaga gataagtcga 120 aatcacaggc agtgaaatgc cttaaaaatg ggtctcctgt ctatgttagg aatctcttat 180 tttaagtagt cccgcgagac gatttacatc ccgggatcac caacaatctg cgatgagacg 240 atataggatg ggacgcggaa tctaccttct ctatatctgt ctgttatata catatctcca 300 gtttggtact tcgtcgacaa ccgcggtcag tattgaaaat agtgataata gtactgcgga 360 gatgttatca tetaccagea tgtccgetae cacccegata teccagecaa catetecatt 420 cactactcca actagaagat ctacaaatat agctacaagt tcgagtacca cccaggcatc 480 ccagccaaca tctacattaa ctactctaac tagaagctcg acaactatag ctacaagtcc 540 gagtaccacc caggcagcca cattcatagg atcatctacc gattccaata ccactttact 600 caaaacaaca aaaaaaccaa agcgtaaaaa gaataagaat aacggggcca gatttaaatt 660 agattgtgga tataaggggg ttatctacag accgtatttt agccctcttc agctaaactg 720 tactctaccc acagaacctc atattaccaa ccctattgac ttcgagatct ggtttaaacc 780 acgcaccaga tttggggatt ttcttgggga taaagaagac ttcgtaggga atcatacccg 840 caccagcata ttactattta gcagccgtaa tgggagtgtt aattccatgg atcttgggga 900 cgcgacactc gggatcctac aatctaggat accagattac acattatata atattcccat 960 acaacatace gaagegatgt cattgggaat caaatetgtg gaatetgeca egteeggtgt 1020 ttatacatgg cgggtctatg gtggagatgg actaaataaa acagtgctag gacaggtaaa 1080 tgtatctgta gtggcatatc accccccgag cgtaaatctt acaccacgcg ccagtctatt 1140 taataagacc tttgaggcgg tatgtgcagt ggcgaattac ttcccgcgat ccacgaaact 1200 aacatggtat cttgacggga agccaataga aaggcaatac atttcagata cggcaagtgt 1260 atggatagat ggactcatca ccagaagttc tgtgttggct attccgacaa ctgaaacaga 1320 ttccgagaaa ccagatatac gatgtgattt ggaatggcat gaaagtcctg tgtcctataa 1380 gagattcacg aaaagtgtag ccccggacgt ctattaccca cctactgtgt ctgttacctt 1440 gtggaaaatt ggtaactacc atctaccaaa agcaatgagt gctgatatac tgatcacagg 1560 tccgtgtata gaacgtccag gtttggtcaa cattcagagt atgtgtgata tatcagaaac 1620 ggatggaccc gtgagttata cctgtcagac catcggatac ccaccaattc taccgggatt 1680 ttacgacaca caagtctacg acgegteeee tgaaategte agtgaateaa tgttggttag 1740 tgtcgttgct gtaatactag gagctgttct catcacagtc tttatcttta ttacggcatt 1800 atgtttatat tatteteate eeeggegatt ataaetetta tagttegtat aaattaetta 1860 tcataaccgt gtttcagcgg ttatattttt ataacagtta attgtttact aatagtttac 1920 aaagtccatc gtttataaaa aacaagccca gtggtattat aatcattcgt atggatataa 1980 accgaeteca atecgtgate tttggtaace egegaegtaa ttaeteteae acattttaae 2040

tagtetacga teacecagat ataataaaaa gattegegtg gacatgeaag gtatgaggte 2100

tacgtcacag ccgttggtcg agataccact ggtagatatg gaaccacagc catctataca 2160 ctccaacgag cctaacccac cgaataaaat gttgacgaca gctatttcat cgcgtaggag 2220 tggaattttt ttattttctc tgggtatgtt ttttttcgga gttatcctaa cagctactat 2280 tatagtatgt acattcatat ttacaatacc agtggatatg ctccagatgc cacgctgccc 2340 tgaggaaacg gtgggtatca aaaactgttg tatccgaccg attagacgcc atgttaaatc 2400 acaccaaqat ctagttgcca catgtgccga atacatggaa caacccgccg gccgcatctg 2460 ctgttggagc gcttatacca ttattggaca tcttcaatgg agatgggata tctacaaacg 2520 actetettta egattgtatt etetetgatg aaaaaaaate gtgtaataca teaatggeeg 2580 tatgtcaatc aacatatett ecaaateeee taagtgaett tattatgege gttaggeaga 2640 tattttctgg aatcctaaat cattaatcca tttactaaat aaataaacaa taccgtttag 2700 qtaattaaac atgattctag tgtttattgt cgtatgtacg ggcgatgggt ggataacaac 2760 tcgacaatga tcaattatat tgattaacct tgtaataaat tcgtcggatt attggatata 2820 tegagatgat ateacattat tttetaatag egtgtgtttg aaagteeace etactagtge 2880 catgtgcgcg tttgatcgaa gaggcattta atgttgccag agtttcaatt ccgtatgtat 2940 2956 cgtcgagtaa tctaga <210> 3 <211> 70 <212> DNA <213> Equine influenza virus <400> 3 cgcggccatc gcgatatccg ttaagtttgt atcgtaatga acactcaaat tctaatatta 60 gccacttcgg 70 <210> 4 <211> 36 <212> DNA <213> Equine influenza virus <400> 4 36 cgcgcggcgg taccttatat acaaatagtg caccgc <210> 5 <211> 70 <212> DNA <213> Equine influenza virus cgcggccatc gcgatatccg ttaagtttgt atcgtaatga agacaaccat tattttgata 60 70 ctactgaccc <210> 6

3

<211> 42

<212> DNA	
<213> Equine influenza virus	
<400> 6 .	
cgcgcggcgg tacctcaaat gcaaatgttg catctgatgt tg	42
<210> 7	
<211> 40	
<212> DNA	
<213> Equine influenza virus	
<400> 7	
ttgtcgactc aatcatgaag acaaccatta ttttgatact	40
	•
<210> 8	
<211> 34	
<212> DNA	
<213> Equine influenza virus	
<400> 8	
ttggatcctt actcadatgc adatgttgca yctg	34
•	
<210> 9	
<211> 74	
<212> DNA	
<213> Equine influenza virus	
<400> 9	
ctagttcgcg atatccgtta agtttgtatc gtaatgaaga caaccattat tttgatacta	60
ctgacccatt gggt	74
<210> 10	
<211> 72	
<212> DNA	
<213> Equine influenza virus	
<400> 10	
agacccaatg ggtcagtagt atcaaaataa tggttgtctt cattacgata caaacttaac	60
ggatatcgcg aa	72
<210> 11	
<211> 20	

<212> DNA

<213> Feline Herpesvirus	
<400> 11	
gattaaacct aaataattgt	20
•	
<210> 12	
<211> 42	
<212> DNA	
<213> Feline Herpesvirus	
<400> 12	
tttttctaga ctgcagcccg ggacatcatg cagtggttaa ac	42
<210> 13	
<211> 18	
<212> DNA	
<213> Feline Herpesvirus	
<400> 13	
gggtttcaga ggcagttc	18
<210> 14	
<211> 21	
<212> DNA	
<213> Feline Herpesvirus	
<400> 14	
atgtccactc gtggcgatct t	21
·	
0.0	
<210> 15	
<211> 42	
<212> DNA	
<213> Feline Herpesvirus	
<400> 15	
	42
tttttctaga ctgcagcccg ggacatcatg cagtggttaa ac	42
<210> 16	
<211> 21	
<212> DNA	
<213> Feline Herpesvirus	

<400> 16

<210>	22			
<211>	17			
<212>	DNA			
<213>	Feline Herpesvirus			
<400>	22			
tttat	attgt aattata			17
<210>	23			
<211>	17			
<212>	DNA			
<213>	Feline Herpesvirus			
			•	
<400>	23			
gtaaa	acgac ggccagt			17
<210>	•			
<211>				
<212>		•		
<213>	Feline Herpesvirus			
		•		
<400>				21
atgat	gacac gtctacattt t			21
			•	
<210>	25			
<211>				
<212>				
	Feline Herpesvirus			
1220	roadio norpos.			
<400>	25			
	cataa cgtacttcag c			21
	3 3			
		·		
<210>	26			
<211>	18			
<212>	DNA			
<213>	Feline Herpesvirus			
<400>	26			
gagga	ittega aaeggtee			18
<210>	27			
<211>	53			

<212> DNA

<213> Feline Herpesvirus	
<400> 27	
aattttctcg agaagcttgt taacaaaaat cattaaggat ggtagattgc a	tg 53
<210> 28	
<211> 55	•
<212> DNA	
<213> Feline Herpesvirus	
<400> 28	
cattategeg atateegtta agtttgtate gtaatgagae gatataggat g	ggac 55
<210> 29	
<211> 18	
<212> DNA	
<213> Feline Herpesvirus	
<400> 29	
actattttca atactgac	18
<210> 30	
<211> 18	
<212> DNA	
<213> Feline Herpesvirus	
<400> 30	
aaatgtgtac cacgggac	18
<210> 31	
<211> 54	
<212> DNA	
<213> Feline Herpesvirus	
<400> 31	
aagaagette tgeagaatte gttaacaaaa ateattataa tegeegggga t	gag 54